

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:	) Atty. Docket: ICB0184
	)
Christophe BERTHAUD	) Confirmation No. 9595
	)
Serial No. 09/631,413	) Group Art Unit: 2672
	)
Filed: August 3, 2000	) Examiner: Jin Cheng Wang
	)
For: WATCH INCLUDING A	) Date: June 29, 2009
CONTACTLESS CONTROL DEVICE	)
FOR A COMPUTER CURSOR	)

**UPDATED SUPPLEMENTAL REPLY BRIEF**

**MAIL STOP: Appeal Brief - Patents**

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Sir:

In view of the filing of the new Examiner's Answer, mailed April 29, 2009, Applicant respectfully submits this Updated Supplemental Reply Brief under 37 C.F.R. §41.41 with respect to the above captioned application. The Supplemental Reply Brief addresses and responds to the Examiner's Answer, mailed April 29, 2009 (hereafter, the "Third Examiner's Answer"), which is in response to Applicant's Supplemental Appeal Brief filed May 25, 2006.<sup>1</sup>

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<sup>1</sup> The Examiner's Third Examiner's Answer states on page 1, last line, that it "is in response to the appeal brief filed 11/15/2204 (sic)." Applicant's attorney, Wesley Ashton, contacted Examiner Jin-Cheng Wang to point out that Applicant filed a Supplemental Appeal Brief on May 25, 2006 and to ensure that the Third Examiner's Answer responds to the Supplemental Appeal Brief filed May 25, 2006. The Examiner assured Applicant's attorney that he considered the Supplemental Appeal Brief of May 25, 2006 when preparing the Third Examiner's Answer. Furthermore, the Examiner has since issued a miscellaneous paper, mailed May 15, 2009, indicating a typographical error on the first page of the Third Examiner's Answer has been

### **Applicant's Rebuttal Arguments**

The independent claims are claims 1, 10 and 13. Applicant has argued the patentability of the independent claims and the subject matter of dependent claim 16 as separate issues (Supplemental Appeal Brief at 16, line 17, to 23, line 3).

1. **The combination of references fails to disclose or suggest the claimed “means for detecting:”** Applicant argued the prior art does not teach, or even suggest, a “means for detecting the speed of a user’s finger over said outer element or the actuation frequency of successive sensors” as recited in claim 1 (Supplemental Appeal Brief at 14, lines 3-5, and at 17, lines 8-10). The Examiner, who admits that neither the Teres Patent nor the Olsen Patent teach a “means for detecting the speed of a user’s finger over said outer element or the actuation frequency of successive sensors” (Third Examiner’s Answer, at 5, lines 8-9; Second Examiner’s Answer at 5, lines 8-9), does not assert that the Ferrari Patent teaches such an element. Instead, the Examiner argues that, from the teachings of the Ferrari Patent, it would be evident that the actuation frequency of sensors, as the user’s finger or fingertip actuates/deactuates on a plurality of sensors, would generate X and Y outputs that depend on the displacement and pressure of the user’s finger or fingertip on the touch sensitive pad so the actuation frequency of the sensors

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corrected so as to clarify the fact that the Third Examiner’s Answer is “in response to the appeal brief filed 5/25/2006.”

depends on the user's rate of lifting/pushing of sensors by the finger or fingertip away/towards the sensors (Third Examiner's Answer, at 6, line 5, to 7, line 1; Second Examiner's Answer, at 6, line 5, to 7, line 1). The Examiner reasons that cursor movement on the computer screen would thus be controlled by the user's rate/speed/frequency of lifting/pushing finger (i.e., the user's speed of movement of a fingertip), (Third Examiner's Answer, at 7, lines 1-3; Second Examiner's Answer, at 7, lines 1-3). This is clearly an *a posteriori* analysis having no support in the Ferrari Patent.

The Examiner's argument fails to establish that the prior art teaches a separate "means for detecting" in accordance with the present invention. Instead, the Examiner postulates that the device taught by the Ferrari Patent operates to control cursor movement based on the speed of the user's finger on an outer element without using a "means for detecting." More specifically, the Examiner states

"Ferrari discloses in Fig.5A-5G, 6-7, and column 11 the actuation frequency of sensors as the user's finger or fingertip actuates/deactuates on a plurality of sensors wherein the X and Y outputs depend upon the displacement and pressure of the user's finger or fingertip on the touch-sensitive pads. The actuation frequency of sensors depends upon the user's rate of lifting/pushing sensors by a fingertip or moving the finger away/towards the sensors. Therefore, the cursor movement on a computer screen is controlled by the actuation frequency by the user's rate/speed/frequency of lifting/pushing a fingertip or a finger (fingertip's rate of movement)." (Third Examiner's Answer, at 6, line 19, to 7, line 3, emphasis in the original).

The Examiner misses the point. Applicants' invention includes a "**means for detecting**" that operates to (i) detect the speed of a user's finger over said outer element, or to (ii) detect the actuation frequency of successive sensors (See claim 1, and original claim 6, and see Applicant's original specification, p. 4, lines 17-24, p. 5, lines 6-8 and lines 25-33). The Examiner has not identified any element in the Ferrari Patent that is capable of performing at least one of the two detecting operations that the claimed "means

for detecting” performs. Instead, the Examiner argues that the faster Ferrari’s sensors are pushed, the faster Ferrari’s cursor will move.

The Examiner’s argument does not address the issue of whether the Ferrari Patent includes a “means for detecting.” In accordance with the present invention, on the other hand, it is possible to use the detected finger speed or the detected actuation frequency to determine the speed of movement of a cursor. Defining a speed of movement for the cursor as a function of the finger speed or actuation frequency allows one to smartly use a small sensor device for efficiently moving a cursor on a larger screen (See, e.g., Applicants’ original specification, at page 4, line 7, to page 5, line 4).

The fact that the Examiner has misconstrued the device disclosed by the Ferrari Patent is evident from page 20, lines 6-22, of the Third Examiner’s Answer. Specifically, the Examiner admits that neither the Teres Patent nor the Olsen Patent teaches a “means for detecting the speed of a user’s finger over said outer element or the actuation frequency of successive sensors” as recited in claim 1 (Third Examiner’s Answer, at 20, lines 6-7). However, the Examiner then asserts that various features of cursor control are disclosed by the Ferrari Patent although the Examiner never alleges that the Ferrari Patent teaches, or suggests, a “means for detecting” as recited by claim 1 (Third Examiner’s Answer, at 20, lines 7-17). The Examiner concludes that it would have been obvious to have incorporated the “additional **means of cursor movement** of Ferrari in the watch device of Teres and Olsen to control a cursor on a display screen in accordance to the fingertip’s movement speed” (Third Examiner’s Answer, at 20, lines 18-22, emphasis added).

As evident from the Third Examiner’s Answer, the Examiner is misconstruing Ferrari’s “means of cursor movement” as a “means for detecting.” Applicants contend

that while Ferrari's device may include structure for controlling cursor movement, it does not include a "means for detecting," as recited by claim 1, such as operates to detect finger speed or actuation frequency.

In sum, the Examiner's contention that the faster Ferrari's sensors are pushed, the faster Ferrari's cursor will move does not establish that Ferrari discloses any structure whatsoever that operates to **detect** finger speed or actuation frequency. As would be instantly understood by a person of ordinary skill in the art, any alleged causal relationship between fingertip speed or actuation frequency and the speed of the cursor of the Ferrari Patent does not involve any structure, or "means," whatsoever that detects the finger speed or the actuation frequency.

For all of the above reasons, the Board of Patent Appeals and Interferences ("Board") should conclude the Ferrari Patent does not teach, or suggest, a "means for detecting" in accordance with independent claim 1. Therefore, the Board should conclude that the Examiner's Section 103 rejection standing against claim 1 of the present application, and based on the combined teachings of the Teres Patent, the Olsen Patent, and the Ferrari Patent is untenable because the combination of these prior art references does not teach, or even suggest, the "means for detecting" in combination with the remaining elements recited in claim 1.

2. **The combination of references does not disclose or suggest cursor movement depending on concentric zones activated:** The prior art does not teach, or even suggest, the embodiment wherein "said sensitive pads are arranged in concentric zones" and "the direction of movement of said cursor [is] determined by the orientation of the orientation of the pad or pads actuated relative to the centre of said concentric zones,

and...the speed of movement of said cursor depends upon the concentric zones actuated or two adjacent concentric zones which are actuated simultaneously” as recited in claim 10 (Supplemental Appeal Brief at 17, lines 8-11, and at 19, lines 1-16). The Examiner improperly asserts that the Ferrari Patent teaches this feature recited in claim 10 (Third Examiner’s Answer, at 9, line 11, to 10, line 2; Second Examiner’s Answer at 12, lines 19-22).

The Examiner’s position is clearly untenable because the Ferrari Patent is limited to teaching a sensing cell array formed by sensing cells arranged by row and column as repeatedly acknowledged by the Examiner (Third Examiner’s Answer, at 5, lines 11-15; at 6, lines 12-18, at 10, lines 5-10; Second Examiner’s Answer at 5, lines 11-15, and at 6, lines 12-18, and at 12, lines 10-13, and at 14, lines 7-13). Thus, the array taught by Ferrari is a Cartesian array, which neither teaches nor suggests an array having concentric zones. Furthermore, even if the teachings of Ferrari, which pertain to row/column arrays, could be applied to the polar coordinate arrangement of sensors taught by Figure 3 of the Teres Patent, it would not teach or suggest that “the speed of movement of said cursor depends upon the concentric zones actuated or two adjacent concentric zones...actuated simultaneously” as recited in claim 10.

In particular, the row/column sensing cell array taught by Ferrari Patent has no “concentric zones;” therefore, it cannot reasonably teach anything about how sensors arranged in concentric zones would operate. The Examiner’s speculation regarding how a device resulting from a combination of the Teres Patent, the Olsen Patent and the Ferrari Patent might work fails to establish a prima facie case of obviousness. In re Newell, 13 U.S.P.Q.2d 1248, 1250 (Fed. Cir. 1989)(Federal Circuit holding that obviousness cannot

be predicated on a retrospective view regarding what features of operation a device resulting from a combination of art might inherently possess).

Therefore, the Section 103 rejection standing against claim 10 of the present application, and based on the combined teachings of the Teres Patent, the Olsen Patent, and the Ferrari Patent, is clearly untenable because these prior art references do not teach, or even suggest, the “sensitive pads are arranged in concentric zones” and “the direction of movement of said cursor [is] determined by the orientation of the orientation of the pad or pads actuated relative to the centre of said concentric zones, and...the speed of movement of said cursor depends upon the concentric zones actuated or two adjacent concentric zones which are actuated simultaneously” in combination with the remaining elements recited in claim 10.

3. **The combination of references does not disclose or suggest “second control means for selecting an object shown...or carrying out a command:”** Applicant argued that the prior art does not teach, or suggest, the combination of a (i) “first control means for controlling movement of a cursor on a computer screen” and (ii) “second control means for selecting an object shown on said screen or carrying out a command” as recited in claim 13 (Supplemental Appeal Brief at 20, lines 3-18). The Examiner argues the Teres Patent teaches a “second control means,” such as electrode (S) forming part of a sensor as shown in Figures 2 and 3 of the Teres Patent (Third Examiner’s Answer, at 11, lines 14-21; and Second Examiner’s Answer, at 13, lines 1-6).

The Examiner’s argument plainly fails to establish that the Teres Patent teaches a “second control means for selecting an object shown on said screen or carrying out a command.” As admitted by the Examiner, the Teres Patent does not teach movement of a

cursor on a computer screen (Third Examiner's Answer, at 3, line 17; and Second Examiner's Answer at 3, line 16). Additionally, Applicant has argued the Teres Patent also does not teach selecting an object on the computer screen or carrying out a command (Supplemental Appeal Brief at 10, line 22, to 11, line 2). While the Examiner contends the Teres Patent teaches a "second control means for selecting an object...or carrying out a command," but not a "first control means for controlling movement of a cursor on a computer screen," the burden rests on the PTO to show where in the Teres Patent there is the explicit or implicit teaching or suggestion regarding the "second control means." See In re Rijckaert, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993).

In the present case, the Examiner indicates Figures 1 to 5 and cols. 1 to 5 of the Teres Patent as containing the explicit or implicit teaching or suggestion relied upon by the Examiner (Third Examiner's Answer, at 11, lines 14-21; Second Examiner's Answer at 13, lines 1-6). The Examiner is attempting to obfuscate the fact that there is no specific teaching in the reference by citing the entire reference, i.e., every word, every figure, and putting the burden on the Applicant to search for this non-existent teaching. It is plain the Teres Patent does not teach, or suggest, a "second control means for selecting an object...or carrying out a command" because the Examiner cannot indicate where in this reference this subject matter is found, and it cannot, in fact, be found.

Applicant has argued that the Olsen Patent and Ferrari Patent are limited to teaching sensors for generating signals controlling movement of a cursor on a computer screen (Supplemental Appeal Brief at 16, line 21, to at 17, line 7), and the Examiner has made no argument that either one of these references teaches a "second control means for selecting an object shown on said screen or carrying out a command." Applicant contends that none of the prior art references teaches selecting an object on the computer screen or



carrying out a command as is the function of the “second control means” recited in claim 13. Therefore, the Section 103 rejection standing against claim 13 of the present application, and based on the combined teachings of the Teres Patent, the Olsen Patent, and the Ferrari Patent is untenable and must be withdrawn.

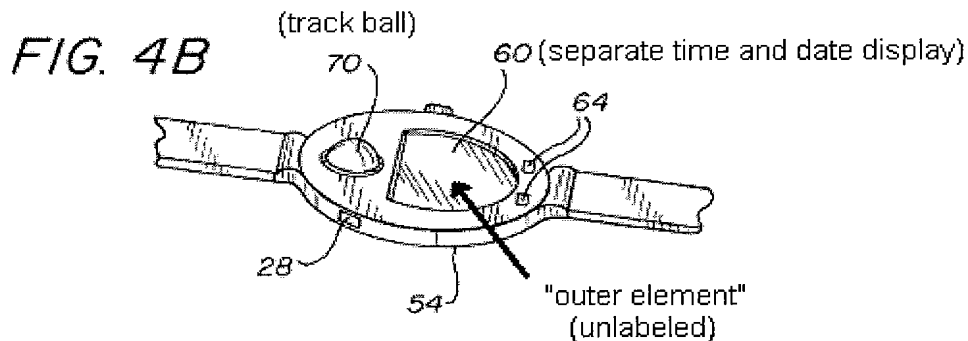
**4. The combination of references does not disclose or suggest the second control means formed by said outer element associated with a pressure sensor:**

Applicant argued the embodiment recited by claim 16 includes a “second control means for selecting an object shown on said screen or carrying out a command” wherein the “second control means are formed by said outer element associated with a pressure sensor,” which is not taught by the prior art (Supplemental Appeal Brief at 21, lines 16-21). Since claim 16 depends on claim 11, which depends on claim 10, all arguments made with respect to claim 10 apply to claim 16 as well (Supplemental Appeal Brief at 21, lines 14-16). Furthermore, because claim 16 incorporates the “second control means for selecting an object shown on said screen or carrying out a command” recited in claims 11 and 13, the arguments made with respect to claim 13 also apply to claim 16.

The Examiner argued that the Olsen Patent teaches a “second control means” such as a trackball formed by a pressure sensor (Third Examiner’s Answer, at 12, lines 10-12; and Second Examiner’s Answer, at 13, lines 7-9). However, there is nothing in the Olsen Patent to teach, or even suggest, that a trackball would be used in combination with touch sensitive sensors for controlling a computer and its display screen.

The Examiner’s argument is plainly untenable for the following reasons. First, claim 16 recites that the “second control means are formed by said outer element associated with a pressure sensor.” From claim 10, upon which claim 16 indirectly

depends, it is clear the “outer element” covers the “display means” or forms an “outer portion of the display means.” Second, Fig. 4B of the Olsen Patent illustrates a “trackball” (70) and a “display” (60). To facilitate a rapid understanding of these relationships, Fig. 4B of the Olsen Patent is reproduced below, with labels added.



As is plain from Fig. 4B above, assuming, *arguendo*, a “track ball formed by a pressure sensor” is taught by the Olsen Patent (See Third Examiner’s Answer, at 22, lines 5-17; and Second Examiner’s Answer at 16, lines 5-17), which is clearly an invalid assumption, the “track ball formed by a pressure sensor” still cannot be the “second control means” recited in claim 16 of the present application because (1) the track ball is not an “outer element” and (2) the track ball neither covers the “display” nor forms an outer portion of the “display.” Furthermore, the “outer element” of claim 16, which depends upon claim 10, must be “partially transparent” and “the touch sensitive pads are supported at least partially by said outer element” so these features are additional reasons why the “track ball” taught by the Olsen Patent cannot reasonably be construed to be the “second control means” recited in claim 16. Also, claim 16 of the present application recites that “selection of an object or said command...being performed by applying pressure onto said outer element.” Since the “track ball” taught by the Olsen Patent is not

an “outer element” in accordance with claims 10 and 16, it is irrelevant whether the track ball taught by the Olsen Patent can be used to perform a select and click function.

It is also evident that the embodiment recited by claim 16, which depends upon claim 10, includes (i) “a plurality of touch sensitive sensors,” and (ii) a “pressure sensor” associated with the “outer element.” The prior art references simply do not teach a device having both “**touch sensitive sensors**” and a “**pressure sensor**” as required by claim 16 of the present invention. In fact, Applicant has argued that the Olsen Patent, in Fig. 4C, teaches away from associating the “outer element” with a pressure sensor (Supplemental Appeal Brief at 12, line 11, to 13, line 13). The Examiner has evinced no reasonable argument in rebuttal of Applicant’s argument.

Finally, the Examiner has failed to demonstrate that a person of ordinary skill in the art would have had a reasonable expectation of success of arriving at Applicant’s invention according to claim 16 even if the combination of the Teres Patent, the Olsen Patent and the Ferrari Patent was made. PharmaStem Therapeutics, Inc. v. ViaCell, Inc., 491 F.3d 1342, 1360 (Fed. Cir. 2007). In this case, the Examiner contends that structure shown in Figure 7 of the Olsen Patent may somehow be applied to the subject matter of the Teres Patent and the Ferrari Patent (Third Examiner’s Answer, at 16, lines 5-17). Figures 6 and 7 of the Olsen Patent pertain, however, to an embodiment wherein the computer mouse and the programmable computer are housed in separate housings (88) and (90), respectively (Olsen Patent, col. 3, lines 34-40). Figure 7 of the Olsen Patent is reproduced below for the Board’s convenience.

The Examiner contends that

“Olsen teaches that the outer element (i.e., the programmable computer housing 90) covers the display means (i.e., display 104) or forms an outer portion (i.e., the programmable computer housing 90 of figure 7) of these

display means (i.e., display 104), and the sensitive pads of the touch sensitive sensors (i.e., motion sensor 104) are supported at least partially by the outer element...Olsen discloses that the outer element covers the display means or forms an outer portion of these display means, and the sensitive pads of the touch sensitive sensors are supported at least partially by the outer element.” (Third Examiner’s Answer, at 16, lines 10-17).

## FIG. 7

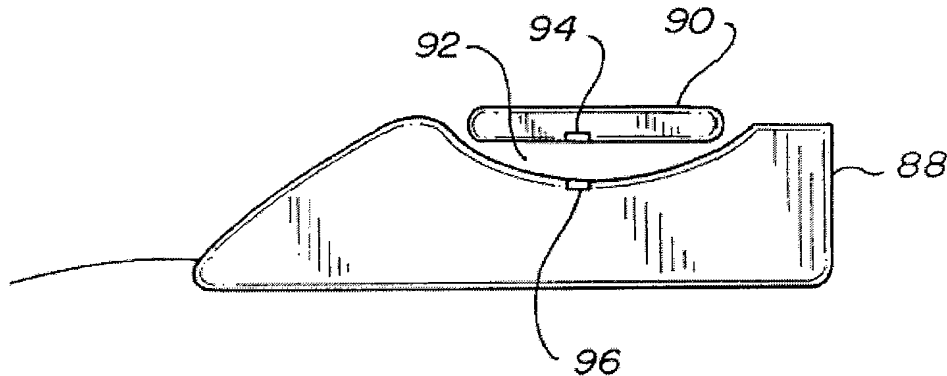


Figure 7 of the Olsen Patent

Figure 7 of the Olsen Patent does not illustrate housing (90) of the programmable computer covering a display (104) as the Examiner contends. Figure 6 of the Olsen Patent, which is a schematic drawing, also does not show the housing (90) covering the display (104). Furthermore, Figure 7 of the Olsen Patent does not teach, or suggest, that the housing (90) forms an outer portion of the display (104) of the programmable computer. Figure 6 of the Olsen Patent also does not teach, or suggest, housing (90) forms an outer portion of the display (104). In view of the above facts, a person of ordinary skill in the art would have no reasonable expectation of success of arriving at Applicant’s invention according to claim 16 even if the combination of the Teres Patent, the Olsen Patent and the Ferrari Patent was made because a person of ordinary skill in the art would have no guidance regarding how to combine Olsen’s dual housing configuration (88) and (90) to obtain the limitation wherein “said second control means are formed by said outer element associated with a pressure

sensor.” Therefore, the Board should conclude that the Examiner has failed to establish a prima facie case of obviousness against claim 16.

For a multitude of reasons discussed above, the Section 103 rejection standing against claim 16 of the present application, and based on the combined teachings of the Teres Patent, the Olsen Patent, and the Ferrari Patent, is untenable and must be withdrawn.

5. **Request for Oral Hearing:** Applicant previously filed a “Request for Oral Hearing,” PTO/SB/32, on May 23, 2005 and paid the required fee. Therefore, Applicant respectfully requests that the previous Request for Oral Hearing be acknowledged by the United States Patent and Trademark Office, and that a date for an Oral Hearing be scheduled promptly in the above-captioned matter.

### **Conclusion**

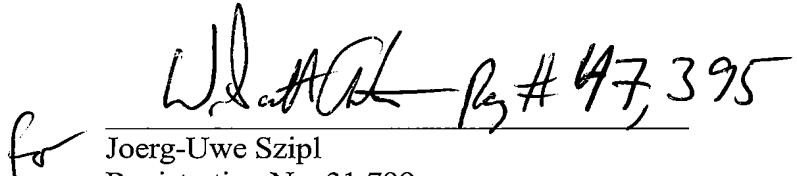
The rejection under 35 U.S.C. § 103 of claims 1, 10, 13 and 16 of the present application as unpatentable over the combination of the Teres Patent, the Olsen Patent and the Ferrari Patent is plainly untenable and should be withdrawn because none of the prior art references teach, or even suggest, either alone or in combination (i) the “means for detecting the speed of a user’s finger over said outer element or the actuation frequency of successive sensors” as recited in claim 1; (ii) the direction of movement of the cursor depends on “the concentric zones actuated or two adjacent concentric zones which are actuated simultaneously” as recited in claim 10; (iii) the “second control means for selecting an object shown on said screen or carrying out a command relating to said object” as recited in claim 13; and (iv) the “second control means for selecting an object

shown on said screen or carrying out a command relating to said object...wherein said second control means are formed by said outer element associated with a pressure sensor" as recited in claim 16.

For all of the above reasons, the Examiner's rejections should be reversed by the Board, and the appealed claims allowed.

Respectfully submitted,

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